

Abstract Submitted  
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**Measurement of Composition B Detonation Performance above the TNT Melting Point<sup>1</sup>** RITCHIE CHICAS, ERIC ANDERSON, SCOTT JACKSON, Los Alamos National Laboratory — Composition B (Comp B) is an explosive composed of RDX and TNT, typically in a 60/40 wt. To ensure a uniform composition at these temperatures, we have designed an experimental apparatus to rotate the explosive during heating. Details of the apparatus are described and experimental results are reported which demonstrate its effectiveness. In particular, measured cylinder expansion test wall velocity probes, front shapes, and steady detonation velocities are compared for nominally identical experiments with the exception of whether rotation was used during heating. Results show that the detonation front-shape is especially sensitive to the effect of rotation, suggesting that RDX particle settling is significant at 120 C.

<sup>1</sup>USDOE

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